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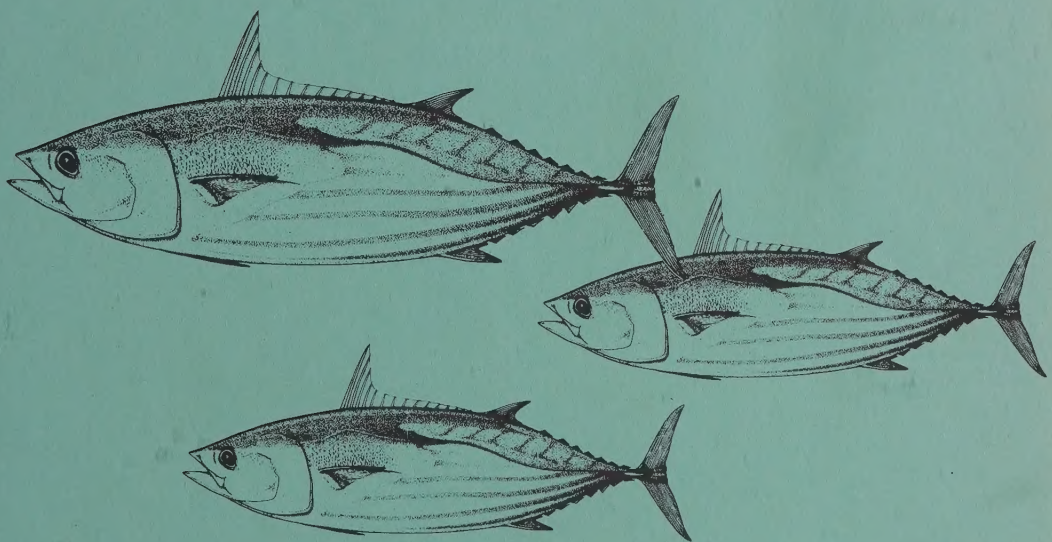

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FISHING INFORMATION

AUGUST 1978, No. 8

EDITOR: JAMES A. RENNER

I. Barrett, Director, SOUTHWEST FISHERIES CENTER
J. Carr, Deputy Director

PREFACE

This publication, Fishing Information, appears monthly and contains 1) fishery advisory information, 2) a narrative description of pertinent surface temperature conditions, 3) charts of winds and pressures for the eastern North Pacific, 4) charts of sea surface temperature for the North Pacific and eastern tropical Pacific, and 5) charts of subsurface temperature structure in the eastern North Pacific.

A supplement to Fishing Information appears at 15-day intervals throughout the year. It contains a chart of sea surface temperature (contoured at 2°F (1°C) intervals) from Baja California to Vancouver Island out to about 135°W. Special bulletins are published in conjunction with the 15-day sea surface temperature charts which include short-term projections of albacore distribution and locations of productive fishing areas, information on oceanographic and atmospheric conditions, and other information as is appropriate during the albacore fishing season.

To cancel delivery of this publication in the event you no longer need to receive it, or to change the delivery address if you are moving but still need to receive it, please notify us by writing: James A. Renner, Editor, Fishing Information, National Marine Fisheries Service, Southwest Fisheries Center, P. O. Box 271, La Jolla, California 92038.

Submitted for publication - September 25, 1978

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ENVIRONMENTAL CHARTS ANALYZED BY:

F. Miller (Figures 4, 6, 8 and 9)
R. Evans (Figures 1, 2, 3, 5, 7 and (15 day supplement)

TECHNICAL EDITOR:
R. Allen
CARTOGRAPHY:
R. Allen, H. Orr

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National Ocean Survey, Pacific Marine Center, Seattle, Washington

Fisheries Research Board of Canada, Pacific Environment Institute, West Vancouver, British Columbia by L. F. Giovando from observations by:
J. Redhead at Langara Island Light; C. T. Hilliar at Cape. St. James Light;
L. Collins at Kains Island Light; M. V. Stewart at
Amphitrite Point Light

Scripps Institution of Oceanography, La Jolla, California

Expendable bathythermograph and salinity observations are made by the mates and engineers of the *Hawaiian Queen* of the Matson Navigation Co. The data are processed under supervision of D. R. McLain at the NMFS Pacific Environmental Group, Monterey, California, using computer facilities of the Fleet Numerical Weather Central, Monterey. The project is partially supported by the National Science Foundation and the Office of Naval Research.

Sea Surface Temperature and Environmental Conditions

Forrest R. Miller

Eastern North Pacific

During August, the mean position of the subtropical high pressure cell in the eastern Pacific is found near 37°N, 150°W while the Aleutian low is normally weak, remaining north of 55°N and west of 170°W. This pressure field produces northerly winds averaging 10 to 15 knots and often reaching 20 knots over the fishing grounds along the U.S. west coast (Figure 1). In spite of these strong surface winds east of 140°W, sea surface temperatures (SST's) usually show a seasonal increase over most of this area. Along the coasts of Oregon, California and Baja California, upwelling and nearshore ocean fronts persist, especially when prevailing winds parallel the coast line.

During August 1978 the subtropical high pressure center shifted slightly to a position near 35°N,145°W (Figure 2) and the Aleutian low was displaced westward from its normal position to 55°N, 170°E. Surface pressures south of 40°N were near normal over most areas, but north of 40°N surface pressures in the Gulf of Alaska and around the Aleutian Islands were 2 to 4 millibars below normal. This caused surface winds from 40°N to 55°N between 125°W and 155°W to be 2 to 4 knots above normal, especially during periods of frequent weather frontal passages into British Columbia and the U.S. northwest.

The north Pacific oceanic front was well defined in August, as it was in July between 40°N and 45°N and west of 145°W (Figure 3). Over most of this area and as far south as 30°N along 150°W, SST's were more than 1°C below normal (Figure 5). This is similar to the pattern of cooler than normal SST's which prevailed in July 1978 over the central part of the eastern Pacific. These cooler SST's have resulted primarily from ocean mixing caused by high winds during weather front passages. However, the negative SST departures in August 1978 from 35°N to 45°N and west of 155°W were 1 to 3°C less than those for August 1977 (Figure 7). This was probably due to less intense wind mixing this August as compared to August of 1977. Along the coast of California SST's were more than 1°C below normal in August 1978 (Figure 5) due to active upwelling and wind mixing. Frequently, high winds made fishing difficult for small tuna boats fishing within 200 km of the coast between 35°N and 40°N.

The principal areas of positive SST departures in the eastern Pacific were located south of 30°N and east of 135°W (Figure 5). The area south of 20°N and east of 120°W was transected by six tropical storms in August leaving SST's more than 1°C below normal in their wake. The area west of Baja California covered by positive SST departures of more than 1°C in July decreased significantly in size during August 1978 due to frequent tropical storm activity which absorbed most of the excess heat which had accumulated in this area over the past several months.

Western North Pacific

During August the western half of the Pacific subtropical high pressure cell dominated the surface circulation south of 40°N producing southerly surface winds west of 170°E. Concurrently, the Aleutian low moved westward to 55°N, 170°E, and between the low center and the subtropical high pressure center (35°N, 145°W) weather fronts developed frequently and moved eastward accompanied by strong surface winds. Extensive ocean mixing associated with these high winds caused some intensification of the north Pacific oceanic front east of 160°E between 40°N and 45°N where SST isotherms (Figure 4) had a greater north-south gradient than in July. In this area, negative SST departures from normal for August (Figure 6) were also greater than in July.

Persistent southerly surface winds, good weather and the northward flowing Kuroshio (Japanese) Current produced SST's which were 1 to 2°C above normal from 30°N to 45°N between 147°E and 165°E in August. This condition, which also prevailed over most of the same area in July, caused the north Pacific front between northern Japan and 160°E to be more concentrated in August. Tropical storm movement from the southeast with high winds and extensive cloud cover helped to keep SST's lower than normal south of Japan between 130°E and 150°E. In this area and along the east coast of Japan SST's were more than 1°C below normal in several places.

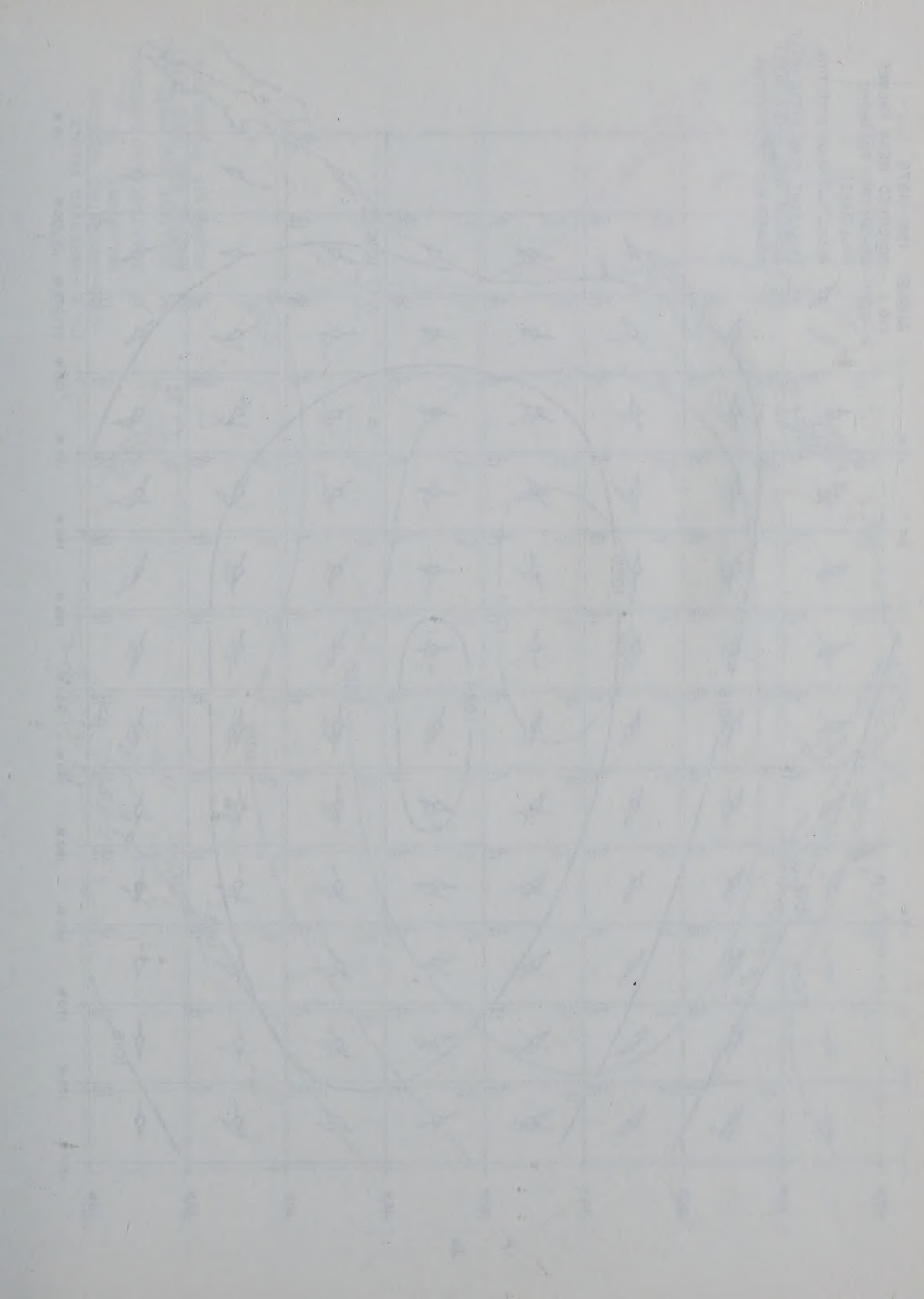
Eastern Tropical Pacific

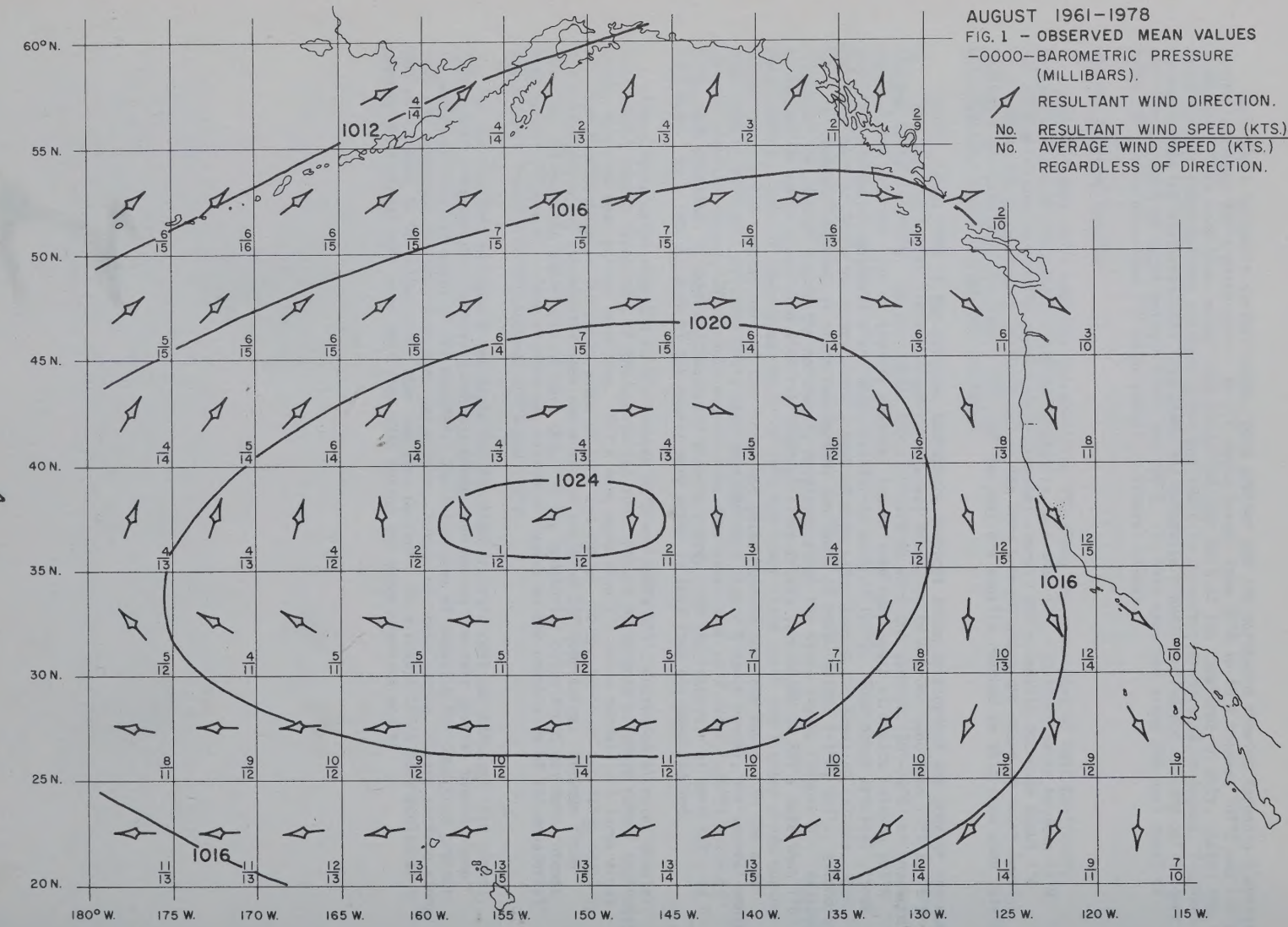
During August SST's normally increase 1 to 2°C along the west coast of Baja California. Elsewhere north of the equator warming is usually less than 1°C. In those areas between 10°N and 20°N which are frequently traversed by tropical storms, SST's usually decrease about 1°C to 2°C along the equator east of 110°W and in the Peru Current along the coast of South America. In August and September the lowest SST's of the year are usually reached in this area when coastal and equatorial upwelling are the strongest.

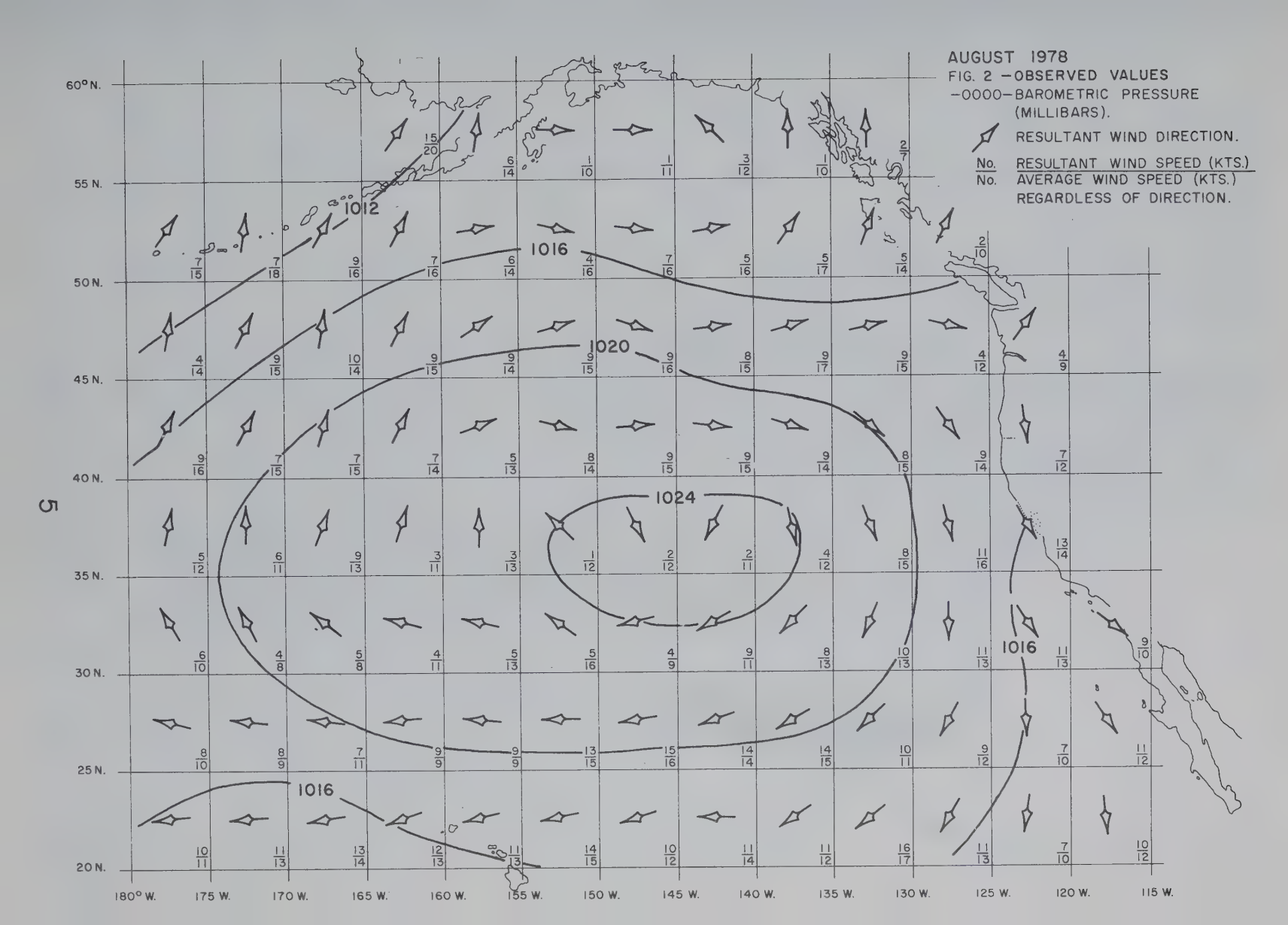
During August 1978 in the northern hemisphere tropical storm development was greater tha normal. Six tropical storms (three became hurricanes) developed in a broad band from 10°N to 15°N between 105°W and 125°W. In this zone, SST's (Figure 8) were the warmest (28°-30°C) of anywhere north of the equator. Two of the six tropical storms developed south of Mexico between 105°W and 115°W and moved northwest along Baja, California east of 120°W. Four other tropical storms developed west of 120°W and moved along a band of warm water toward the Hawaiian Islands. Because of thehigh frequency of storm development two bands of below normal (>1°C) SST's, extending from near the equator toward the northwest, developed along the storm tracks (Figure 9). Adjacent to the cooler water associated with the tropical storm tracks were bands of SST's more than 1°C above normal. Some of these areas south of 15°N had lower cloud cover and lighter winds during August because the central part of the storms had paths between the warm bands. In the area from 16°N to 24°N east of 140°W SST's have remained more than 1°C above normal, for several months. Several tropical storms, which would usually have dissipated over cold water (<20°C) north of 20°N, have continued to move northwestward drawing energy from the reservoir of warm SST's in this area. As a result, much of the excess warm water in this area has been removed.

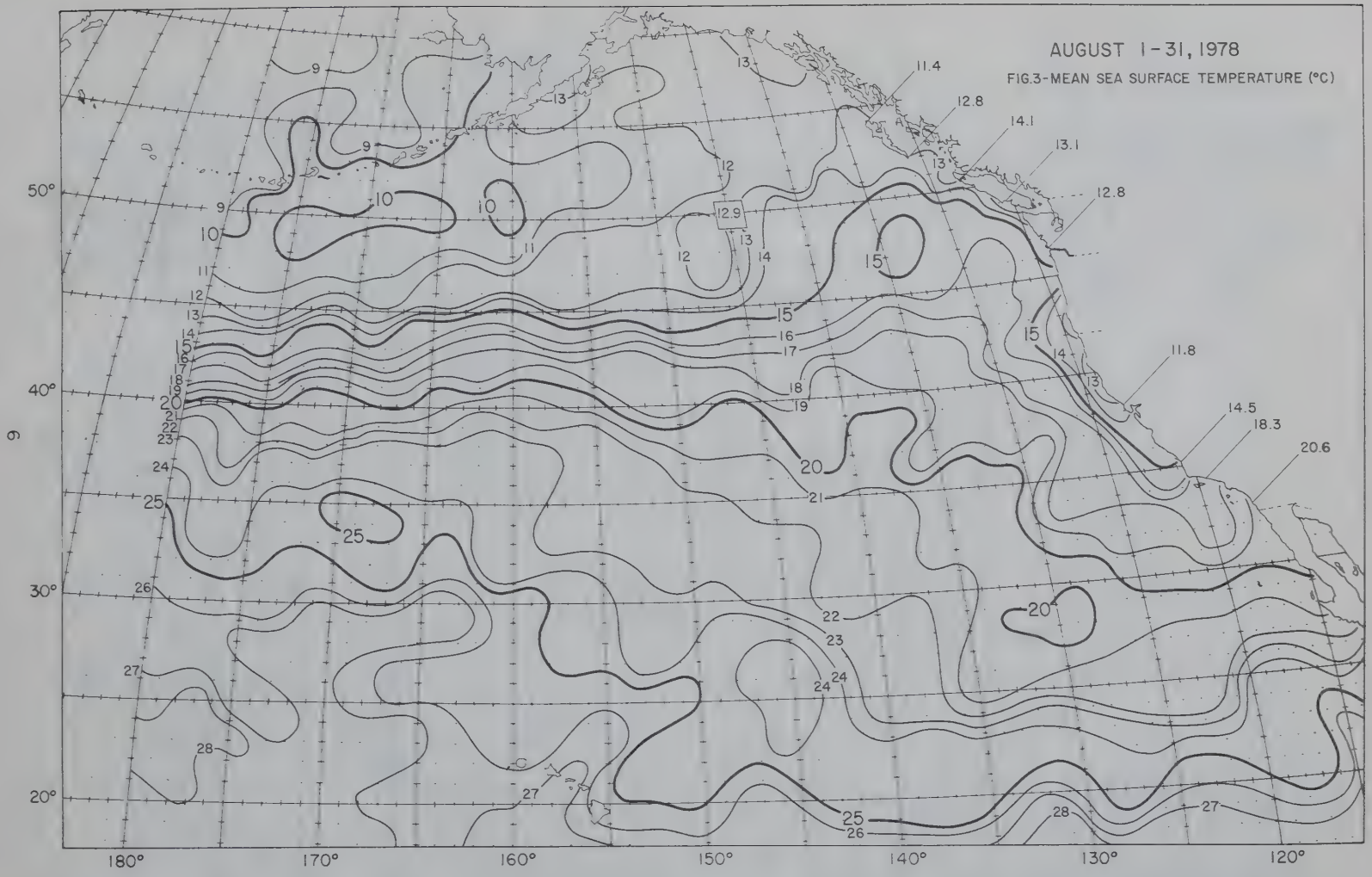
Along the equator from 5°N to 5°S between 85°W and 150°W SST's decreased at rates greater than normal over a large part of the equatorial zone (Figure 9) because of above normal southeast trade winds and very active upwelling. SST's were more than 2°C below normal in 3 large areas near the equator between the north coast of Peru and 150°W. To the north of the large negative SST departures along the equator were two areas of positive SST departures. Between these positive and negative departures of more than 1°C the equatorial ocean front was more intense than normal (Figure 8). Tuna fishing was active in August on the north side of the equatorial ocean front from 2°N to 5°N between 100°W and 120°W.

In the southern hemisphere the south Pacific high pressure cell was stronger than normal. This caused stronger and steadier southeast winds than during the past several months along the coast of Peru and south of the equator. The large area of negative SST departure greater than 1°C extending westward from Peru was a direct result of these strong, steady surface winds and an increase in low cloud cover over the Peru Current. As a result SST's have cooled at a greater than normal rate over this area than during the three previous months.



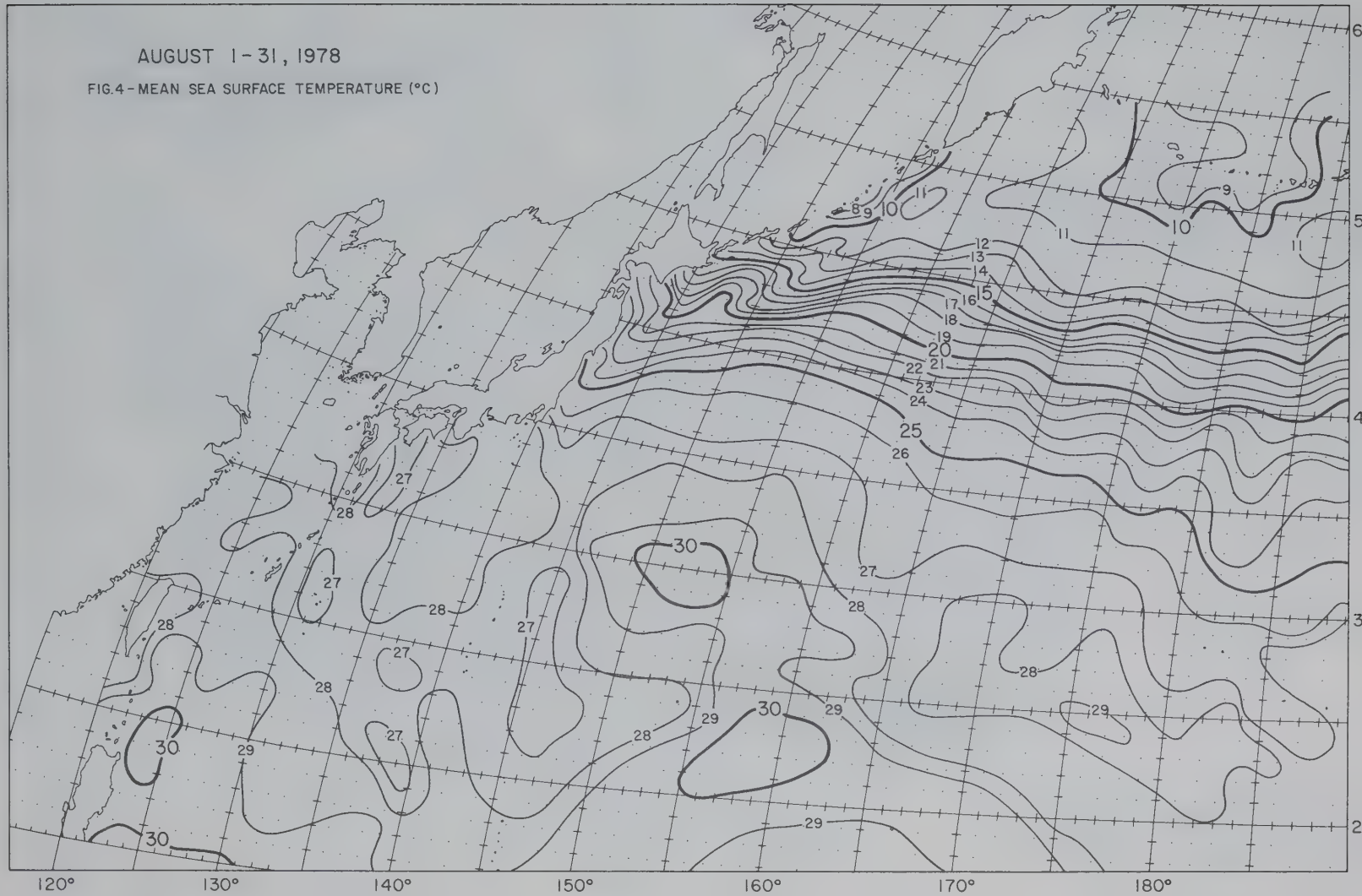

AUGUST 1961-1978
FIG. 1 - OBSERVED MEAN VALUES
-0000- BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.)
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1012
1016
1020
1024
1016
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.

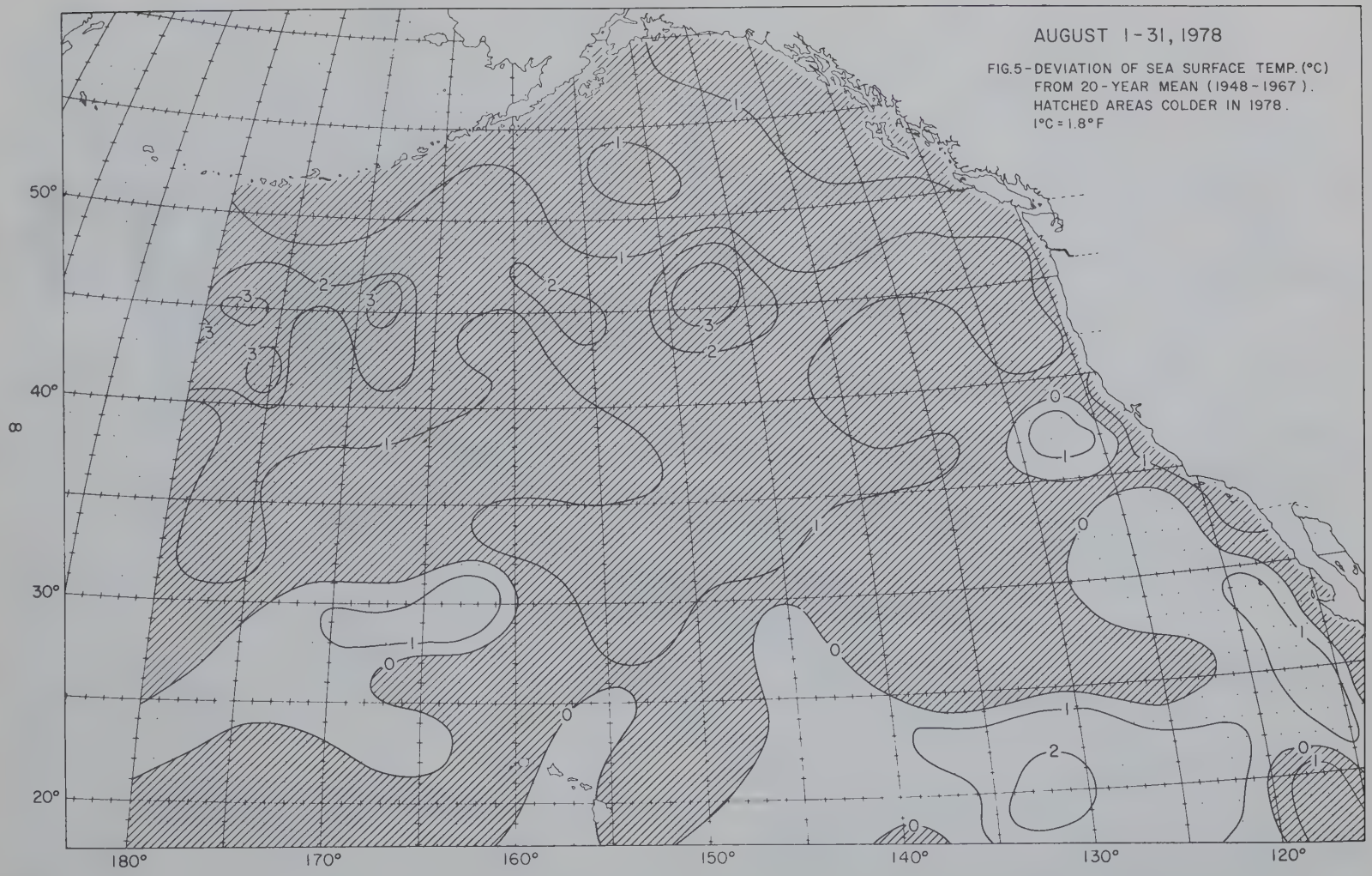

AUGUST 1978
FIG. 2 —OBSERVED VALUES
—0000— BAROMETRIC PRESSURE (MILLIBARS).
RESULTANT WIND DIRECTION.
No. RESULTANT WIND SPEED (KTS.)
No. AVERAGE WIND SPEED (KTS.) REGARDLESS OF DIRECTION.
1012
1016
1020
1024
1016
1016
60° N.
55 N.
50 N.
45 N.
40 N.
35 N.
30 N.
25 N.
20 N.
180° W.
175 W.
170 W.
165 W.
160 W.
155 W.
150 W.
145 W.
140 W.
135 W.
130 W.
125 W.
120 W.
115 W.

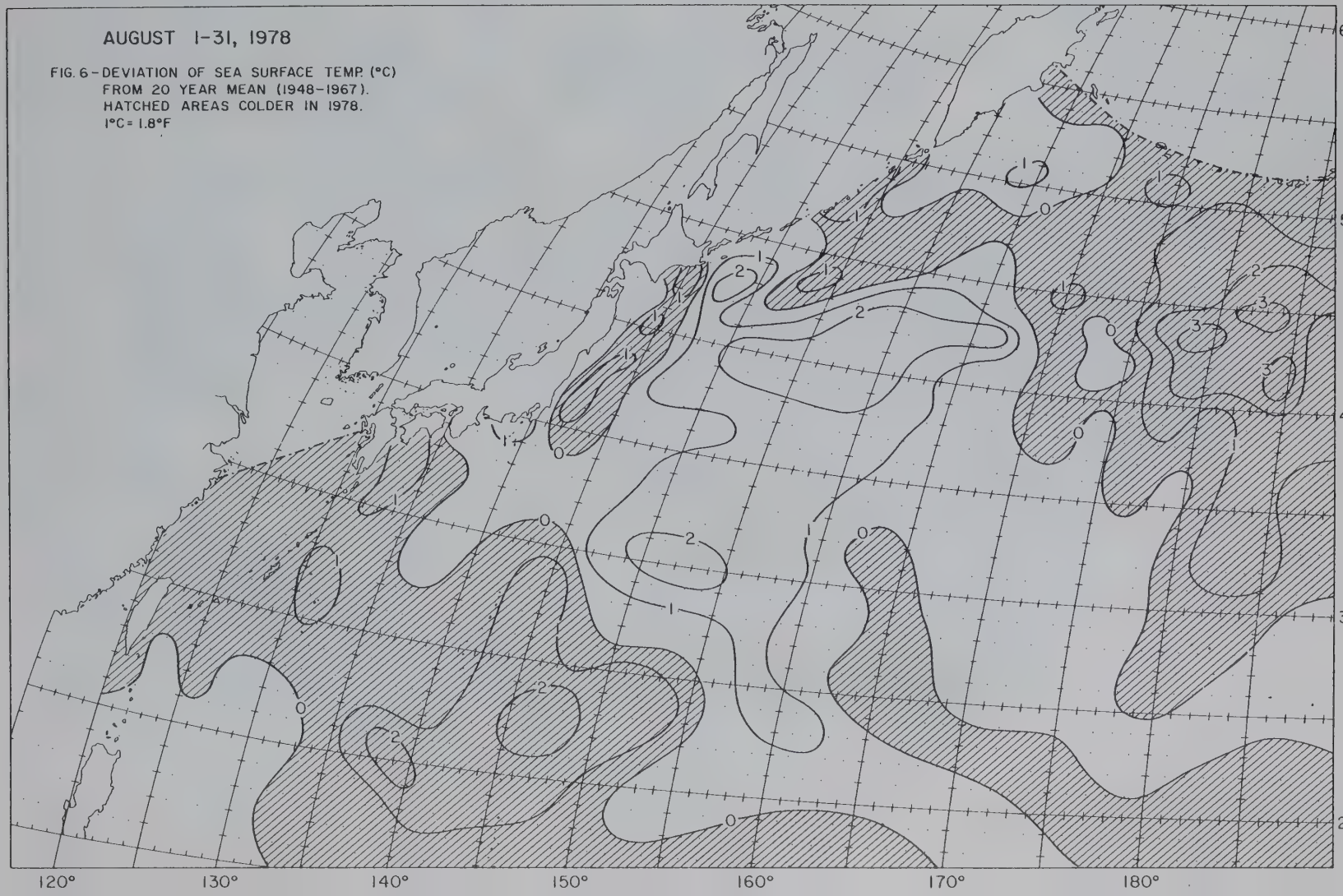

AUGUST 1-31, 1978
FIG.3-MEAN SEA SURFACE TEMPERATURE (°C)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
11.4
12.8
14.1
13.1
12.8
12.9
11.8
14.5
18.3
20.6

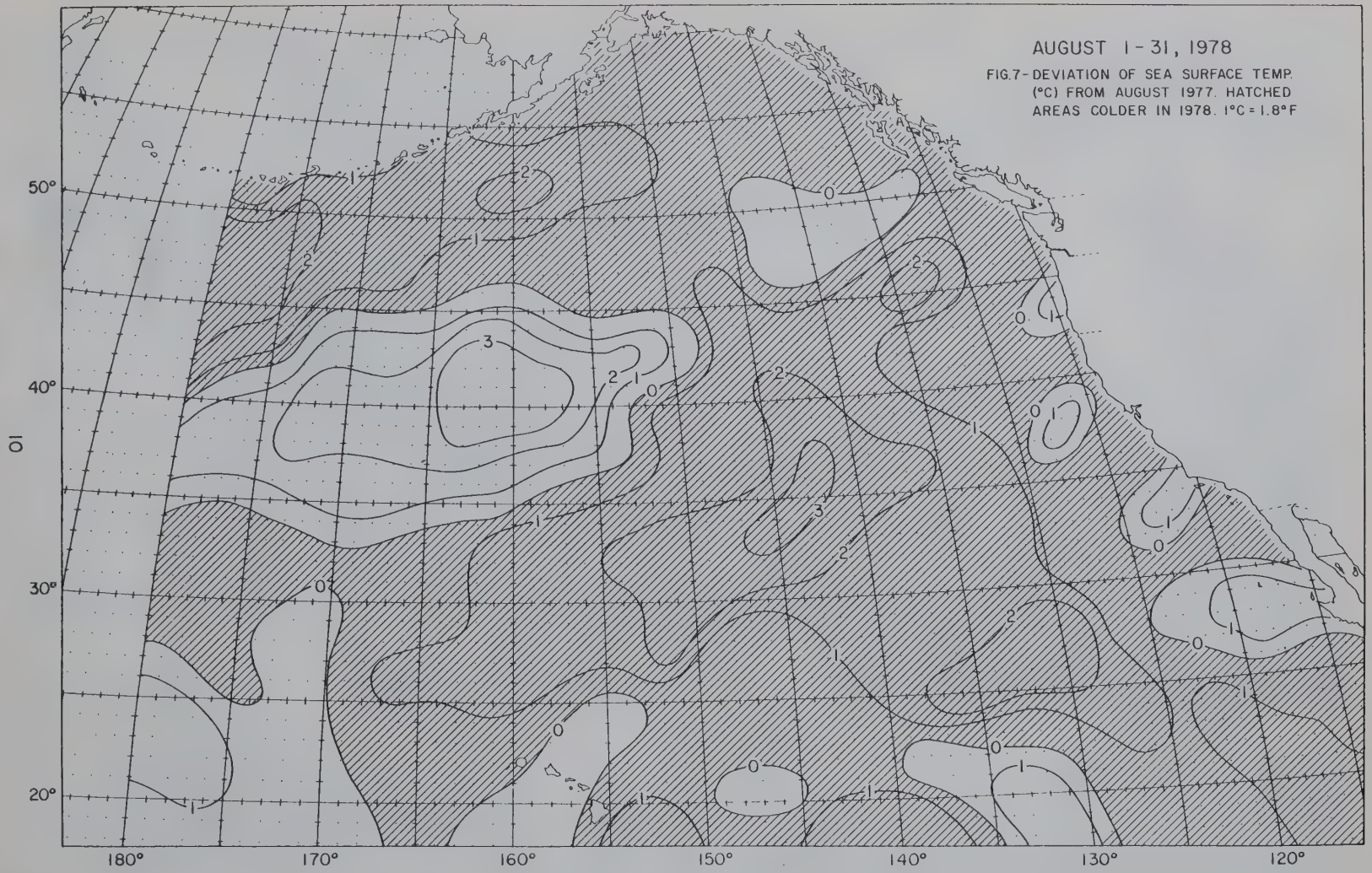
AUGUST 1-31, 1978

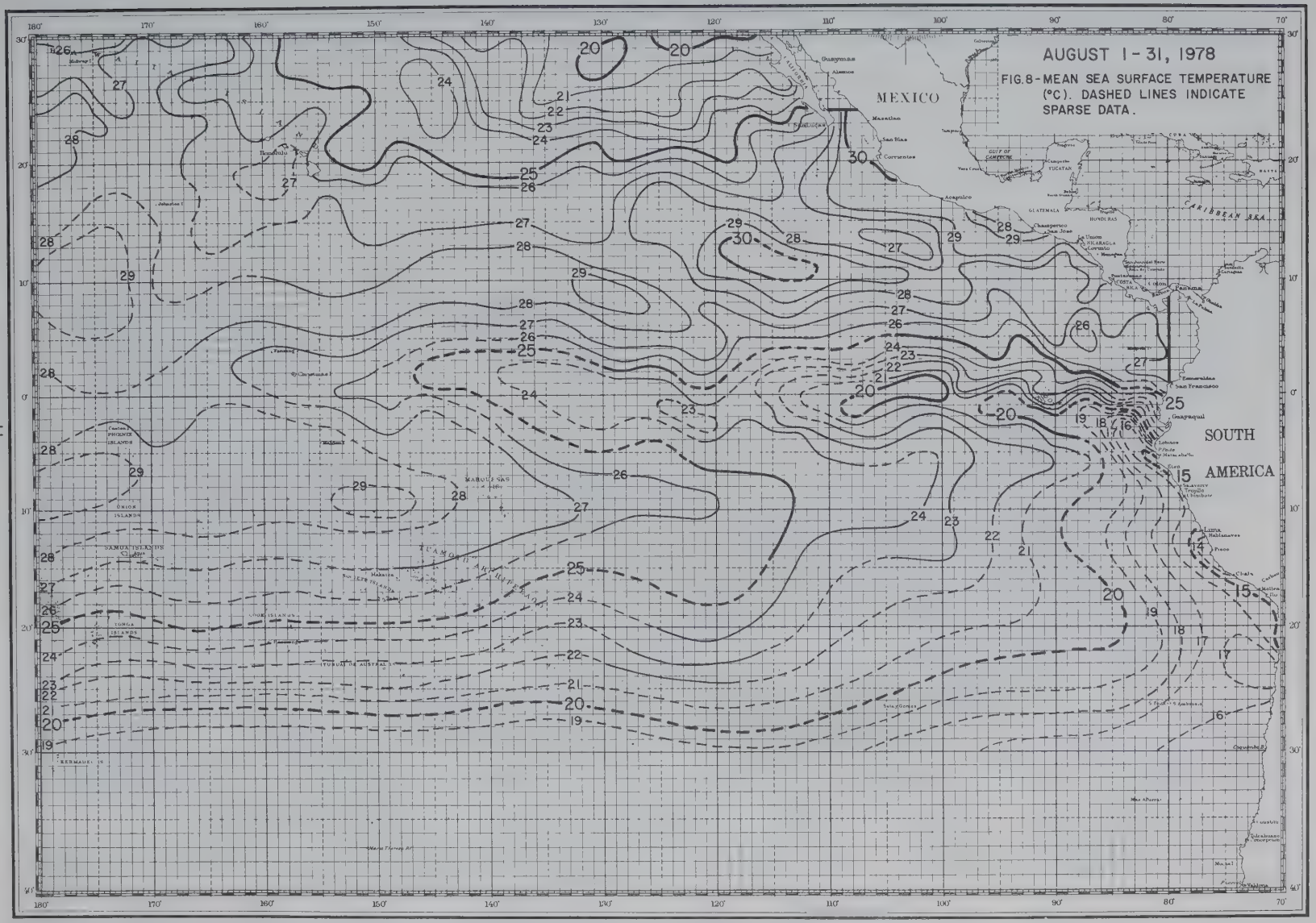
FIG.4-MEAN SEA SURFACE TEMPERATURE (°C)




AUGUST 1-31, 1978
FIG.5-DEVIATION OF SEA SURFACE TEMP.(°C) FROM 20-YEAR MEAN (1948-1967). HATCHED AREAS COLDER IN 1978.
1°C = 1.8°F
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


AUGUST 1-31, 1978
FIG. 6 - DEVIATION OF SEA SURFACE TEMP. (°C) FROM 20 YEAR MEAN (1948-1967). HATCHED AREAS COLDER IN 1978.
1°C = 1.8°F
60°
50°
40°
30°
20°
120°
130°
140°
150°
160°
170°
180°


AUGUST 1 - 31, 1978
FIG.7- DEVIATION OF SEA SURFACE TEMP. (°C) FROM AUGUST 1977. HATCHED AREAS COLDER IN 1978. 1°C = 1.8°F
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


AUGUST 1 - 31, 1978
FIG. 8 - MEAN SEA SURFACE TEMPERATURE (°C). DASHED LINES INDICATE SPARSE DATA.
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GUATEMALA
HONDURAS
NICARAGUA
COSTA RICA
PANAMA
CUBA
GULF OF CAMPECHE
YUCATAN
Acapulco
Manzanillo
San Blas
Guayaquil
Callao
Lima
Paita
Salaverry
Trujillo
Chimbote
Pisco
Galapagos Is.
Marquesas Is.
Tuamotu Archipelago
Samoa Islands
Tonga Islands
Cook Islands
Tubuai de Austral Is.
Bermuda
Easter Is.
Juan Fernandez Is.
Tahiti
Fanning I.
Christmas I.
Johnston I.
Palmyra I.
Howland I.
Baker I.
Phoenix Islands
Union Islands
Line Islands
Marquesas Is.
Tuamotu Archipelago
Tubuai de Austral Is.
Cook Islands
Tonga Islands
Samoa Islands
Bermuda
Easter Is.
Juan Fernandez Is.
Tahiti
Fanning I.
Christmas I.
Johnston I.
Palmyra I.
Howland I.
Baker I.
Phoenix Islands
Union Islands
Line Islands

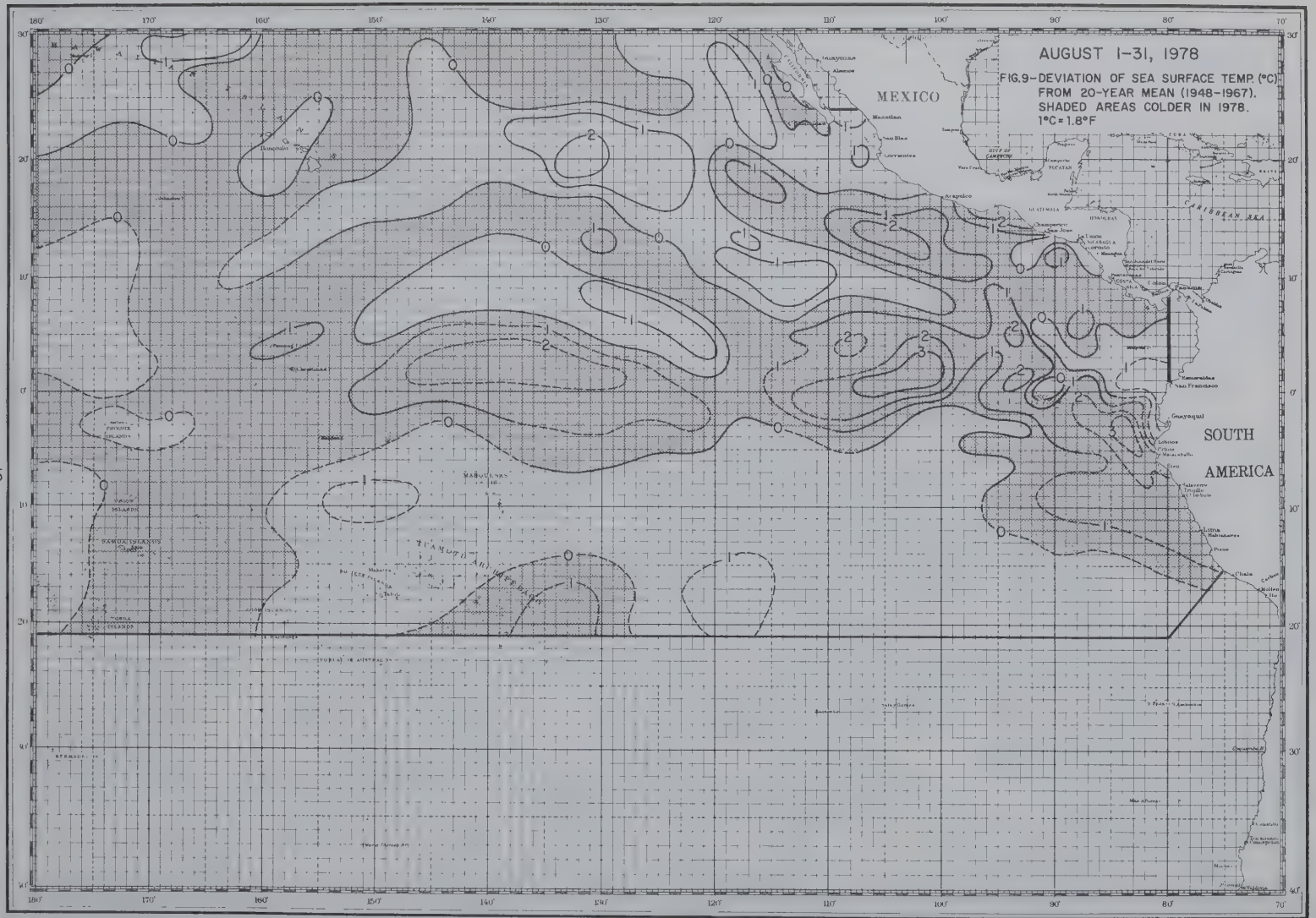
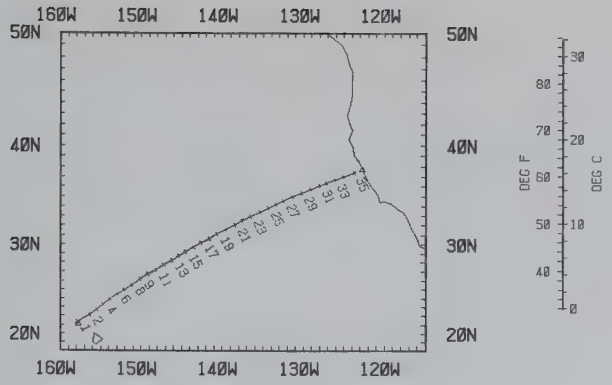

AUGUST 1-31, 1978
FIG.9-DEVIATION OF SEA SURFACE TEMP.(°C) FROM 20-YEAR MEAN (1948-1967). SHADED AREAS COLDER IN 1978.
1°C = 1.8°F
MEXICO
SOUTH AMERICA
CARIBBEAN SEA
GUATEMALA
HONDURAS
COSTA RICA
PANAMA
CUBA
YUCATAN
GULF OF CAMPECHE
Acapulco
Manzanillo
Guayaquil
Lima
Callao
Chile
Peru
Ecuador
Colombia
Venezuela
Galapagos Islands
Marquesas Islands
Tuamotu Archipelago
Society Islands
Samoa Islands
Phoenix Islands
Line Islands
Marshall Islands
Bermuda
Tropic of Cancer
Tropic of Capricorn
Equator
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°
30°
20°
10°
0°
30°
20°
10°
0°

FIGURE 10



SHIP HAWAIIAN QUEEN
VOYAGE 229
MATSON
MAKAPUU PT, OAHU, HAWAII
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28 JUL 1978 - 03 AUG 1978
NOAA-NMFS PEG MONTEREY, CA.

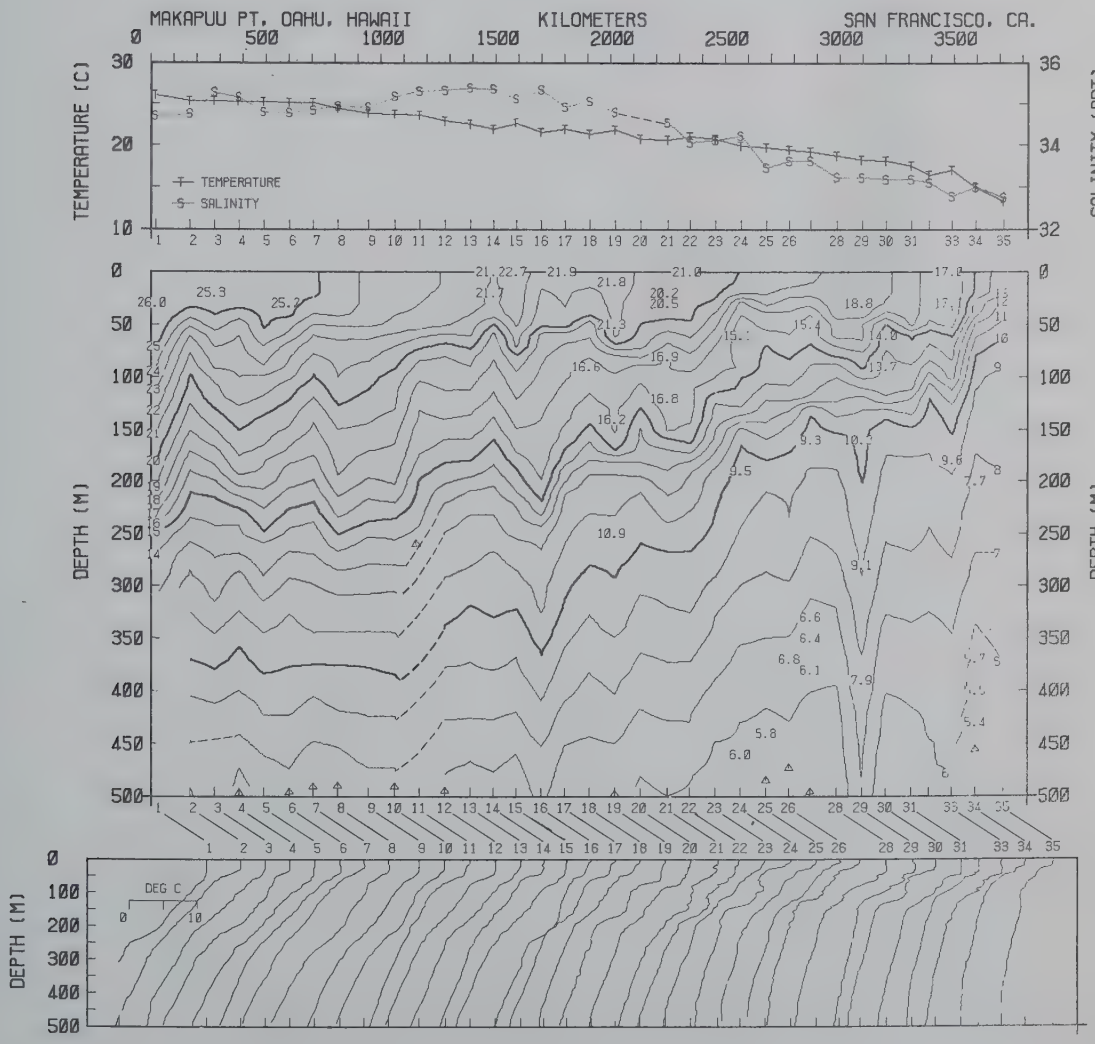
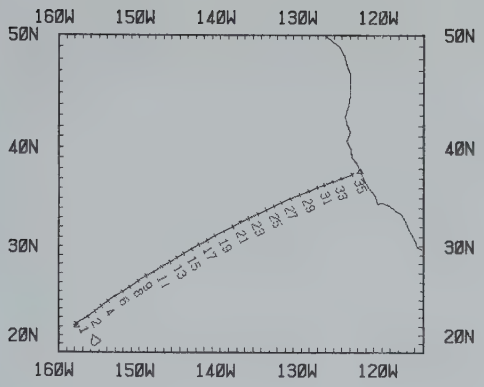


FIGURE 10



SHIP HAWAIIAN QUEEN
VOYAGE 229
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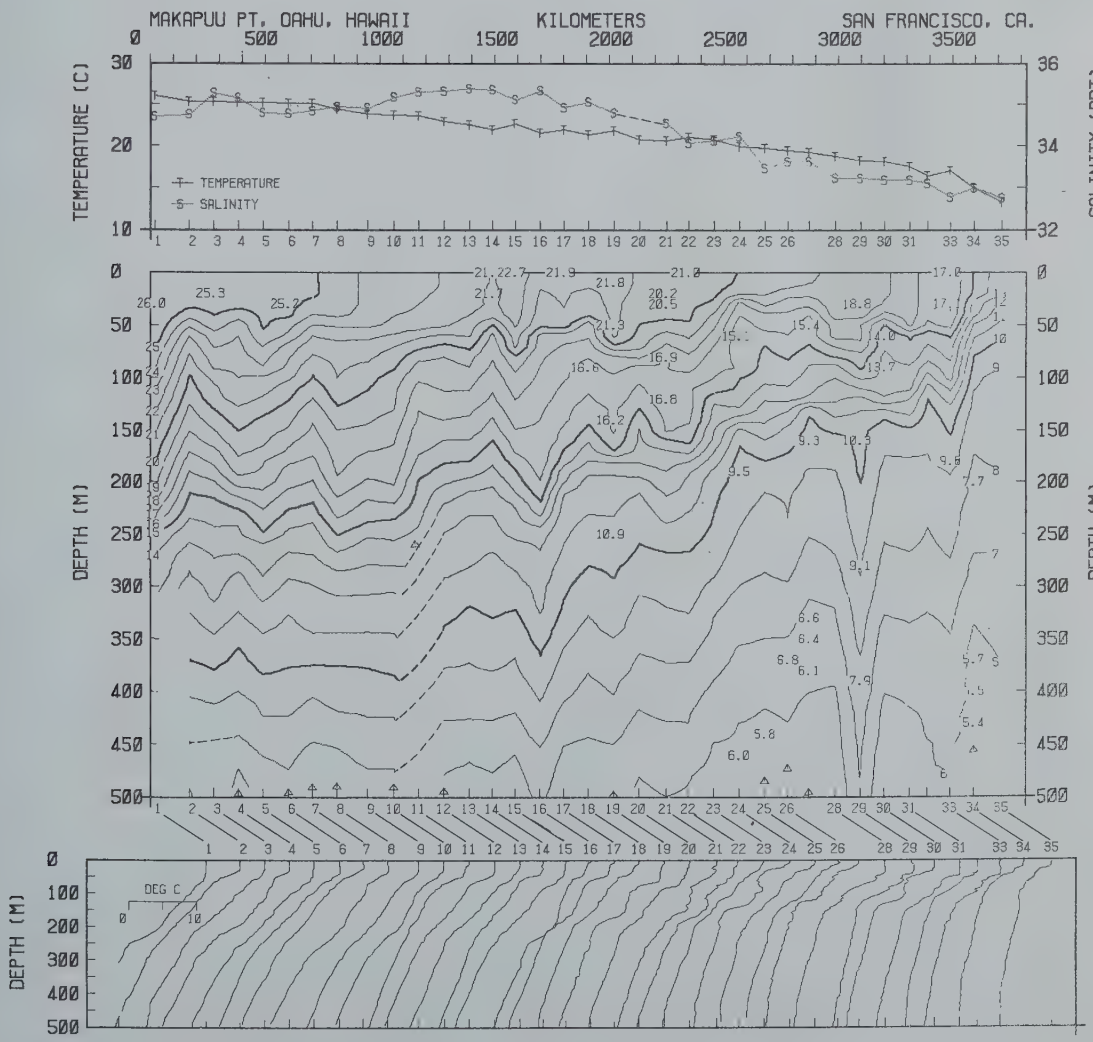
NOAA-NMFS PEG MONTEREY, CA.



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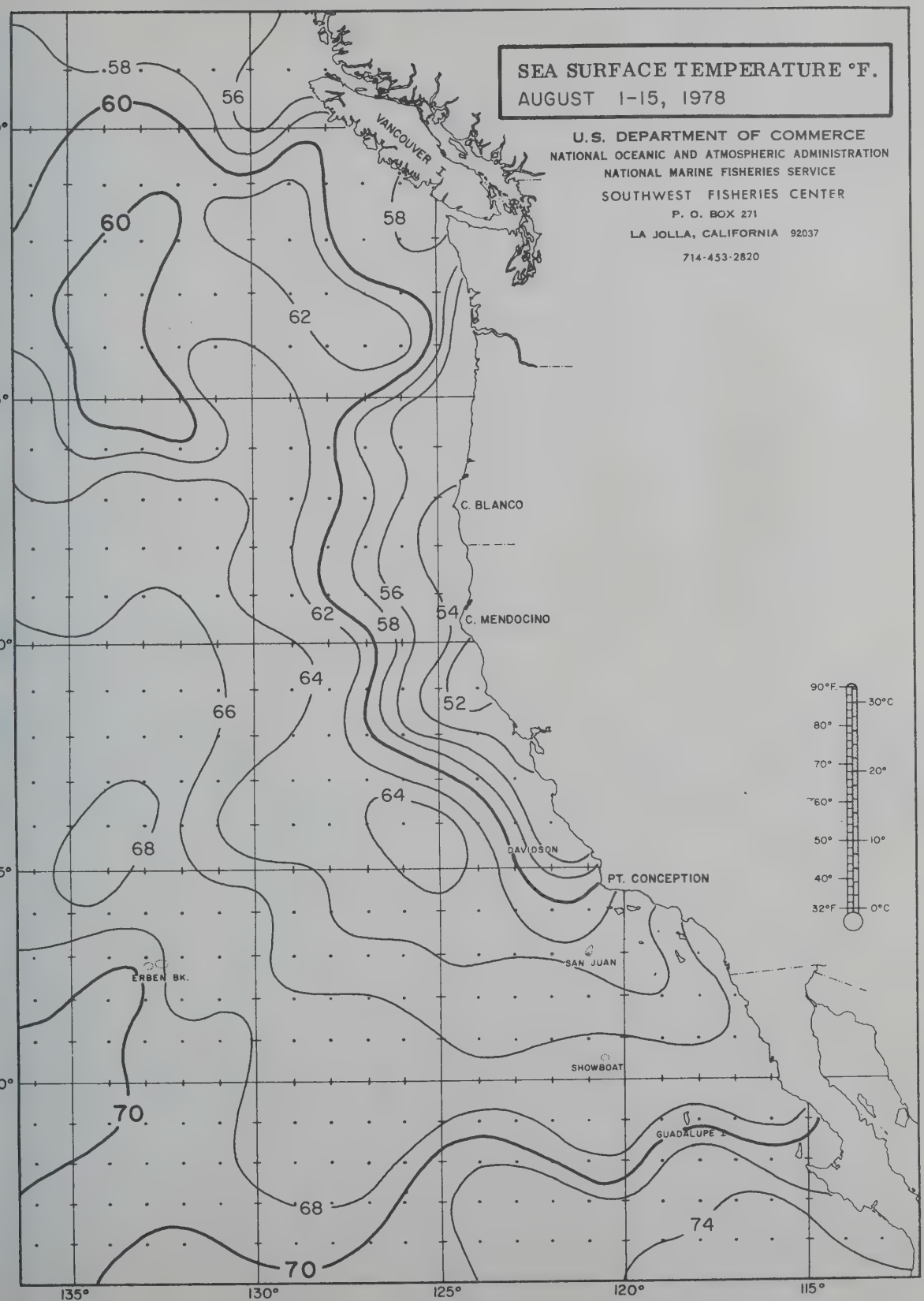

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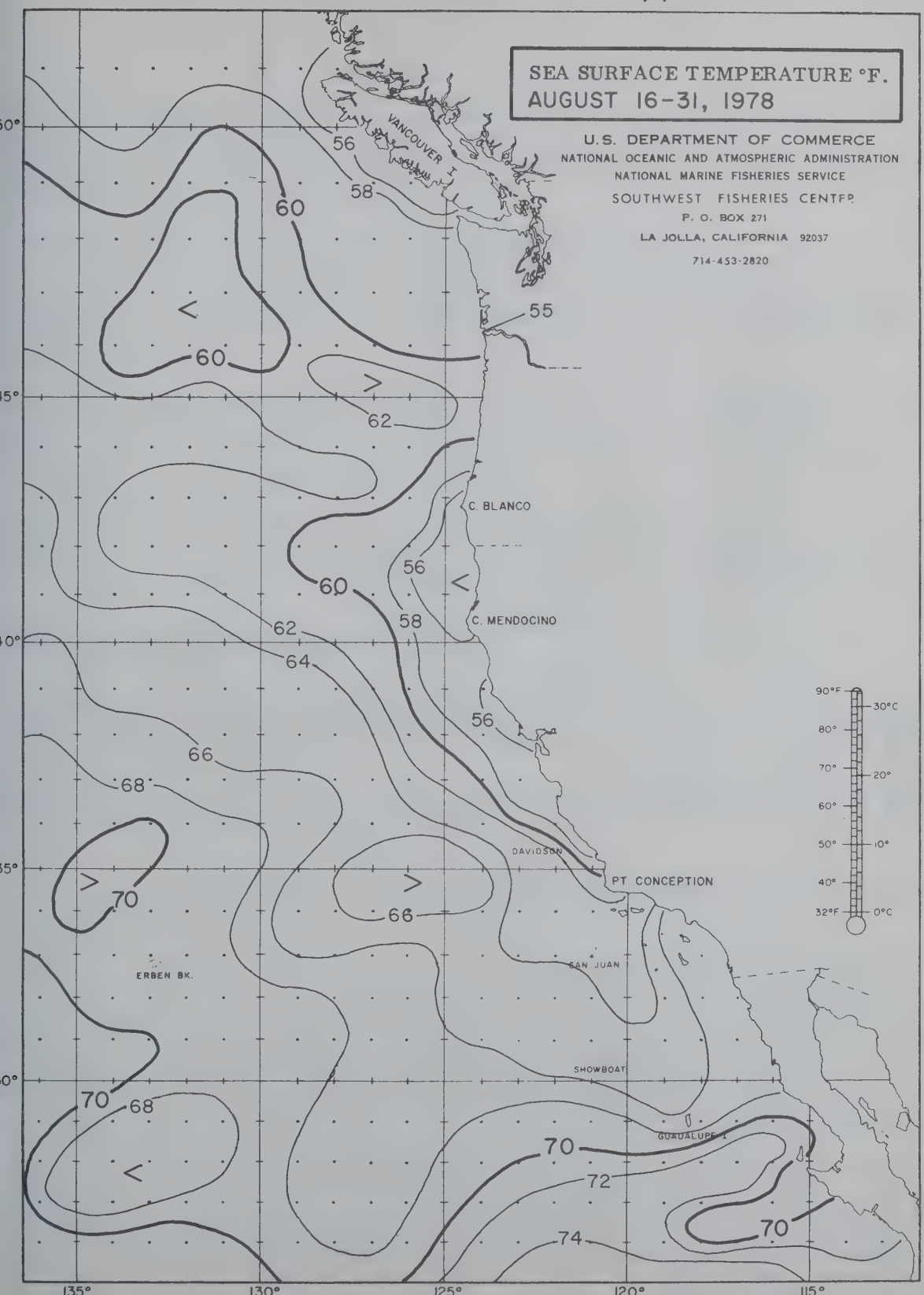

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NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center
La Jolla, California 92038

BULLETIN NO. 78-4

ALBACORE FISHING CONCENTRATED IN THREE AREAS

Albacore were reported from Vancouver Island to northern Baja California during August 1-14; however, most of the rcial boats were concentrated between Crescent City and Westport, Morro Bay to Monterey, and west of the ing grounds" off San Diego to the San Juan Seamount. Although few catches of 100 fish or more were also reported ape Mendocino, strong winds here and better fishing in other areas limited fishing activity between San Francisco rescent City. Meanwhile, north of Westport, a Canadian vessel reported small catches of albacore near the Seamount west of Cape Flattery and albacore were sighted at the northern end of Vancouver Island in late July; o catches were subsequently reported from Canadian waters.

Fishing off San Diego was far offshore as jigboats, baitboats and purse seiners caught albacore in the "dumping ds" - San Juan Seamount area. The jigboats were scattered and fishing was inconsistent and spotty. Individual scores ranged from less than 10 fish a day to 200-400 fish on one day. Baitboats and purse seiners also had fair fishing as a score of 2-4 tons a day was reported from a baitboat and four purse seiners unloading in edro averaged 15 tons each from albacore caught off southern California. The purse seiners, however, were re- d to be working on bluefin tuna and caught albacore with bluefin tuna. The average size of the albacore from ern California was approximately 15 pounds (6.8 kg). Larger albacore which were caught in July were not ant in early August.

Catches were made on 11-13 pound (5.0-5.9 kg) albacore off Morro Bay. Jigboats fishing 100-120 miles offshore aily scores of 100-400 fish on some days but fishing was not consistent as days of good catches were followed ys of poor fishing. Rough seas were also a factor offshore and when boats moved closer to shore, larger fish -30 pounds (8.2-13.7 kg) were caught. However, the catches nearshore were not as good as offshore. At the f the second week in August, boats were, again, fishing about 120 miles offshore and some catches of 200-300 per boat were made. Fishing looks promising in this area.

The most consistent fishing for the first 2 weeks of August was in the area beyond 100 miles off the Cape Blanco ity. When rough seas and strong winds were absent, jigboats averaged 100-150 fish/day/boat from this location. er north, between Coos Bay and the "dumping grounds" off the Columbia River, catches in spots were similar to off Cape Blanco; but catches decreased in the second week of August to about 50-100 fish/day/boat. Albacore this area averaged 11-13 pounds (5.0-5.9 kg). Approximately 1000 jigboats were fishing off Oregon during August.

Catches west of Westport were also on 11-13 pound (5.0-5.9 kg) albacore and fishing was generally slow. However, was a report of a boat which averaged nearly a ton a day for 9 days from this area. Some baitboats from iego are expected to operate in this area later this month.

The baitboat, Linda, on charter to the American Fishermen's Research Foundation (AFRF) worked off Morro Bay g the first half of August. The fishermen and the National Marine Fisheries Service's (NMFS) biological tech- ns on board the vessel tagged approximately 650 albacore during this 2-week period and have now tagged about fish for the season. The Linda is currently in San Diego, but plans are for the boat to return to central ornia for more tagging in the second half of August.

During August 1-14 the Municipal Landing sportboat fleet of San Diego reported catches of mostly 1-2 albacore assenger while fishing, for the most part, about 80 miles southwest of San Diego. The mean sizes of these fish 18-20 pounds (8.2-9.1 kg). Meanwhile, albacore sportboats from north of San Diego to Avila Beach, the Columbia area, and Westport also had days of good catches.

The AFRF-Pacific Tuna Development Foundation's (PTDF) chartered jigboats reported excellent fishing from approxi- y 840 miles north-northwest of Midway Island during the first 2 weeks of August. Individual boat catches per ere about 125-670 fish and the average albacore sizes were 16-20 pounds (7.3-9.1 kg) when the jigboats were on ishing grounds.

During the first half of August the eastern Pacific high pressure system was centered near 40°N and west of and it usually dominated the winds and weather over the Pacific northwest. Above-normal surface pressure and surface temperatures (SST) prevailed north of Cape Mendocino for most of the month. These conditions provided y good fishing weather at times and SST's between 58°F (14.4°C) and 62°F (16.7°C) (see chart) along the ngton-Oregon coasts. From Cape Mendocino to Monterey Bay strong coastal winds from the coast to 135°W made ng difficult and increased coastal upwelling and offshore wind mixing. As a result, SST's were 2-4°F (1.1-2.2°C) normal where stronger than normal surface winds induced upwelling near the coast. Around the Davidson, San Juan Showboat Seamounts surface winds and SST's were more suitable for fishing than north of Monterey Bay. Although along the coast from 36°N to Point Arguello were less than 60°F (15.6°C), offshore and around the seamounts fishing was active, SST's were 60°F (15.6°C) to 65°F (18.3°C). Surface winds, seas and SST's were more favor- for fishing south of 36°N and east of 125°W than elsewhere along the U.S. west coast from August 1-15, 1978.

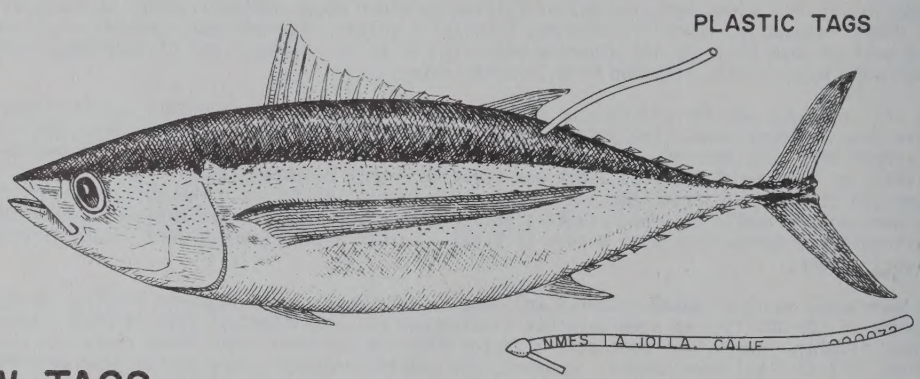
The Long Range Prediction Group, National Weather Service, Washington, D.C. indicates that the eastern Pacific pressure system will not be as dominant a feature over the Pacific northwest during the last half of August. frontal weather and cyclonic circulation will cause SST's to remain about the same or drop slightly during the half of August. Southern Oregon and central California will experience lighter coastal winds on an average with er periods of high winds and seas along the coast. It is expected that the eastern Pacific high pressure center remain west of 140°W and south of 40°N most of the time with central pressures near normal. The southern fornia fishing grounds will probably not experience much change in SST's or fishing weather during the remainder ugust 1978.

Staff, Albacore Fisheries Program
R. Michael Laurs, Leader

ct 15, 1978

$ REWARD $

FOR ALBACORE TUNA TAGS



YELLOW TAGS

THE NATIONAL MARINE FISHERIES SERVICE WILL PAY $ 2.00 FOR EACH YELLOW TAG RECOVERED. (NO NEED TO RETURN FISH)

RECORD:

- WHERE
- WHEN
- HOW

} *FISH WAS CAUGHT*

- LENGTH OF FISH (TIP OF LOWER JAW TO FORK OF TAIL)

FORWARD TO NMFS ADDRESS ON TAG

RED TAGS

THE NATIONAL MARINE FISHERIES SERVICE WILL PAY $ 50.00 FOR EACH RED TAG & FISH RETURNED. (FISH WITH TAG INTACT MUST BE RETURNE

RECORD:

- WHERE
- WHEN
- HOW

} *FISH WAS CAUGHT*

- LENGTH OF FISH (TIP OF LOWER JAW TO FORK OF TAIL)

NOTIFY NMFS P.O. BOX 271, LA JOLLA, CA. TEL. (714) 453-2820

THE AMERICAN FISHERMEN'S RESEARCH FOUNDATION WILL AWARD CASH PRIZES FOR YELLOW & RED TAG NUMBERS DRAWN IN AN ANNUAL LOTTERY.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL MARINE FISHERIES SERIVCE
Southwest Fisheries Center
La Jolla, California 92038

Bulletin No. 78-5

BEST FISHING OFF CENTRAL AND NORTHERN CALIFORNIA

Days of good fishing were reported from central California to southern Oregon and off the Columbia River during last 2 weeks of August. Rough seas, however, hampered fishing efforts in these areas as well as off Westport e fishing was slow. Elsewhere, only a few boats remained off San Diego and fishing was also slow.

The better jigboat catches during August 15-30 were made 80-150 miles offshore between Eureka and Coos Bay and the 1500 fathom spot off Morro Bay. Top catches were mostly 100-400 fish/boat/day near the Jackson Seamount off Blanco and 80-100 miles off Eureka in the third week of August as an estimated 200 boats were fishing in the . On August 23, however, winds increased and most of the boats were in port. When winds and seas abated, boats rned to the fishing grounds, but catches decreased. Albacore landed from this area averaged 10-15 pounds (4.5-kg). Smaller albacore of 7-11 pounds (3.2-5.0 kg) were caught offshore Morro Bay during this period. Top jig-scores from this area were more than 250 fish a day, but rough seas hampered the fishing fleet and most of the s were able to fish for only a few days at a time. Baitboats were also working off central California on larger averaging about 20 pounds (9.1 kg) and some catches of 100-150 fish/day/boat were reported during the third of August, 20-35 miles offshore between Monterey and Santa Cruz. Also, scores of 60-150 fish/boat/day were rted 30 miles off Half-Moon Bay during the third week of August and catches of 100-300 fish were made by jigboats de the Guide and Pioneer Seamounts and off Ft. Bragg on a few days. A large fleet of jigboats were working off ral California.

Fishing off Westport, meanwhile, was on 10-25 pound (4.5-11.4 kg) albacore and the average catches by jigboats approximately 30-50 fish/day. Sportboats in this area made good catches on large fish averaging 20 pounds (9.1 kg) he south of this area, boats reported good signs of albacore in late August and by the end of August scores of 50 fish or more were made by jigboats in the "dumping grounds" area off the Columbia River. Fishermen in this nity are expecting the albacore to school. In other areas in the Pacific Northwest and Canada, only a few reports tches were heard. Fishing was poor off Newport.

Only a few boats remain in southern California waters and they have been working from the 213 fathom spot south-of San Diego to outside the "dumping grounds" and off Cortez Bank. Landings by boats fishing near the 213 fathom and the "dumping grounds" were on albacore of 25-29 pounds (11.4-13.2 kg). Albacore caught farther offshore mostly 12-16 pounds (5.5-7.3 kg). Scores were generally less than 25 fish/day/boat.

The American jigboats fishing north of Midway Island are still reporting some catches of 100-300 fish/day/boat. one boat remains on charter to the American Fishermen's Research Foundation (AFRF) and the Pacific Tuna Develop-Foundation (PTDF). Meanwhile, the AFRF-chartered baitboat, Linda, is currently tagging albacore off southern fornia. The Linda spent much of its time in port in the last half of August to repair equipment.

The San Diego sportboat fleet out of Municipal Landing fished southwest of San Diego during August 15-30 and hes fluctuated from less than 100 albacore to more than 2,000 fish a day. Daily averages ranged from less than sh/angler to nearly 3 fish/passenger on albacore that averaged 20-30 pounds (9.1-13.6 kg).

From August 15-20 the eastern Pacific high pressure system shifted slowly westward and southward. Subsequently, Gulf of Alaska and northeast Pacific came under the influence of a low pressure system with several frontal ges.

During the last 4 days of August a weak high pressure ridge developed over Oregon and Washington and caused an ease in surface winds along the coast from Cape Blanco to Point Arguello. During the last half of August most of coastal area south of 38°N was dominated by the eastern edge of the high pressure system with generally lighter ce winds and seas than in July or early August. However, frontal passages across the coast north of 40°N were panied by strong winds and rough seas which at times affected coastal weather as far south as Point Arguello.

Sea surface temperatures (SST) along the U.S. west coast from Washington to Point Arguello were 2-4°F (1.1-2.2°C) r during the last half of August than during the first half. Most of the warming took place where SST's (see) were less than 58°F (14.4°C) and less wind mixing and inshore upwelling took place than during the previous 15 West of the Davidson and San Juan Seamounts, SST's were 1-2°F (0.5-1.1°C) above normal. Along the coast, SST's 1-2°F (0.5-1.1°C) above normal north of Cape Mendocino. South of 39°N along the coast, SST's were slightly below l where 15 days ago SST's were 2-3°F (1.1-1.6°C) below normal.

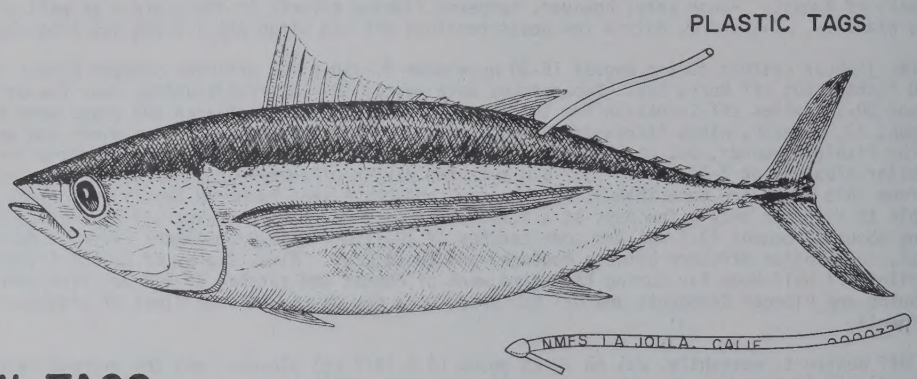
The National Weather Service, Long Range Prediction Group's outlook for the first half of September indicates a nuation of periodic frontal passages across the northeast Pacific followed by intrusions of high pressure over est coast between 35°N and 45°N. This condition is expected to affect fishing weather along the U.S. west coast manner similar to that from August 20-31, 1978. No marked change in the SST pattern from that in the accompanying is expected if the weather patterns, winds and ocean currents remain similar to the last half of August.

st 31, 1978

Staff, Albacore Fisheries Program
R. Michael Laurs, Leader

$ REWARD $

FOR ALBACORE TUNA TAGS



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